# REQUIREMENTS FOR THE MASTER OF SCIENCE

**MEWBURNE COLLEGE OF EARTH AND ENERGY**

**THE UNIVERSITY OF OKLAHOMA**

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<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>MINIMUM TOTAL HOURS (Thesis)</th>
<th>30</th>
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<tbody>
<tr>
<td>MINIMUM TOTAL HOURS (Non-Thesis)</td>
<td>36</td>
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## GENERAL REQUIREMENTS

**Required Courses**

### CORE COURSES (11 hours):

- **Geological Engineering**
  - Two courses from the following:
    - GE 5143, Fluid Flow in Porous Media
    - GE 5243, Introduction to Rock Mechanics
    - GE 6263, Advanced Rock Mechanics I

### APPLIED MATHEMATICS (one course from the following):

- Math 4163, Introduction to Partial Differential Equations
- ENGR 5723, Engineering Analysis of Digital Computer
- PE 5563, Mathematical Simulation Models
- AME 5763, Introduction to Finite Element Methods

### GRADUATE SEMINAR (2 hours, or one credit hour of each from):

- GE 5971, Graduate Seminar
- GE 5990, Special Studies

### THESIS RESEARCH (*Thesis students only, 4 hours*):

- GE 5980, Research for Master's Thesis

### ELECTIVES (15-25 hours):

*Thesis Students:*

- 15 hours of approved electives with at least 9 hours in PGE

*Non-thesis Students:*

- 25 hours of approved electives with at least 18 hours in PGE

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**Note:**

Students may apply only 3 credit hours of S/U graded courses (excluding thesis hours) to the MS in Geological Engineering.

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A student who has done satisfactory graduate work and has earned a 3.0 grade point average may file for master's candidacy.

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**Geological Engineering**

**M470**

**Master of Science**

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**For Students Entering the Oklahoma State System for Higher Education:**

**Summer 2015 through Spring 2016**

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**draft 12/2014**